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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

KAM, CHIH MIN

ART UNIT PAPER NUMBER

1656

DATE MAILED: 08/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/027,015

Applicant(s)

AKELLA ET AL.

Examiner

Chih-Min Kam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2005.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
4a) Of the above claim(s) 8-19 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-7 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 27 May 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/15/04;2/28/05
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

HC

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DETAILED ACTION

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 1656.

Election/Restrictions

2. Applicant's election without traverse of Group I, claims 1-7, and election of SEQ ID NO:4 and bone-derived angiogenic protein as angiogenic growth factor in the response to restriction requirement file July 5, 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Upon reconsideration, a linear form (SEQ ID NO:3) and cyclic form (SEQ ID NO:4) of IGDIGD, and all the angiogenic growth factor cited in claim 3 will be included for examination. Claims 8-19 are non-elected inventions and are withdrawn from consideration, and claims 1-7 and SEQ ID NO:3 and 4 are examined.

Informalities

The disclosure is objected to because of the following informalities:

3. An amino acid sequence (GGDIGGG) is cited in the specification (see page 7, line 25) and required to have sequence identifiers "SEQ ID NO:". Appropriate correction is required. Applicants must comply with the requirements of the sequence rules (37 CFR 1.821-1.825) and provide a copy of sequence listing and CRF containing all the sequences.
4. The specification cites a copending application at page 7, line 15 without providing the application number in the text. Appropriate correction is required.

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5. Figs. 1A and 3A are objected to because both drawings have black background, which a clear copy is not easily obtained. Fig. 1B is objected to because both the peptide and the scramble are shown with dark column. Appropriate correction is required.

Claim Objections

6. Claims 2, 4 and 5 are objected to because the claim contains non-elected sequences. Claims 2, 4 and 5 are also objected to because of the use of “[SEQ ID NO.]”. Use of “(SEQ ID NO:)” is suggested.

7. Claim 3 is objected to because of the recitation of “bone-derived angiogenic proteins proteins”. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-7 are indefinite because the claims recite IGDQ as SEQ ID NO:3 and GGIGDGG as SEQ ID NO:4, while the specification (page 6) and sequence listing indicate IGDIGD as SEQ ID NO:3 (linear form) and SEQ ID NO:4 (cyclic form). Claims 3, 6 and 7 are included in the rejection because they are dependent on a rejected claim and do not correct the deficiency of the claim from which they depend.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1 and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schor (WO99/02674).

Schor discloses a compound with a relative molecular mass of less than 15000 comprising the peptide IGD or a peptide or non-peptide mimic thereof, which may be used to modulate cell migration and is useful in angiogenesis (page 5, second paragraph), where the peptide may consists of multiple repeats of IGD in a cyclic form, e.g., tandem repeats of IGD-containing moiety such as IGD itself (page 8, paragraphs 5-7: claim 1); a pharmaceutical composition comprising the compound and a pharmaceutically acceptable carrier (page 17, last paragraph), and the composition may be presented as a tablet, which may contain a binder such as gelatin or hydroxypropylmethylcellulose (page 18, claims 5 and 6); and the carrier can be water or saline which will be sterile or pyrogen free (page 20, paragraph 5; claim 7) . Although the reference does not specifically indicate the isolation of the tandem sequence of IGD such as IGDIGD, at the time of invention was made, it would have been obvious that one of ordinary skill in the art is motivated to make and use IGDIGD because the IGDIGD sequence is the minimum length of the tandem sequence of IGD and may provide a more active agent for

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modulating cell migration (IGDS and IGDQ are also active as IGD), which results in the claimed invention and was, as a whole, prima facie obvious at the time the claimed invention was made.

Conclusion

10. No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chih-Min Kam whose telephone number is (571) 272-0948. The examiner can normally be reached on 8.00-4:30, Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathleen Kerr can be reached at 571-272-0931. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chih-Min Kam, Ph. D.
Patent Examiner



**CHIH-MIN KAM
PATENT EXAMINER**

CMK

August 3, 2005